

Claims

1. A method comprising:
determining a status of the a system;
setting an associativity level of a non-volatile memory unit of the system,
based on the status of the system.
2. The method of claim 1, wherein the non-volatile memory unit is a cache for a hard disk of the system.
3. The method of claim 2, wherein in response to determining the system is receiving power from a battery power source, setting the associativity level to a first level of associativity, the first level of associativity includes greater associativity than a second level of associativity.
4. The method of claim 3, wherein in response to determining the system is receiving AC power from a wall outlet, setting the associativity level to the second level of associativity.
5. The method of claim 4, wherein the first level of associativity is at least a 6 way set associative cache.
6. The method of claim 4, wherein the second level of associativity is a 4 way set associative cache.

7. The method of claim 1, wherein the second level of associativity is a 2 way set associative cache.

8. A machine-readable medium having stored thereon a set of instructions which when executed cause a system to perform a method comprising of:

determining a status of the a system;

setting an associativity level of a non-volatile memory unit of the system, based on the status of the system.

9. The machine readable medium of claim 8, wherein the non-volatile memory unit is a cache for the hard disk.

10. The machine readable medium of claim 9, wherein in response to determining the system is receiving power from a battery power source, setting the associativity level to a first level of associativity, the first level of associativity includes greater associativity than a second level of associativity.

11. The machine-readable medium of claim 8, wherein in response to determining the system is receiving AC power from a wall outlet, setting the associativity level to the second level of associativity.

12. The machine-readable medium of claim 8, wherein the first level of associativity is at least a 6 way set associative cache.

13. The machine-readable medium of claim 8, wherein the second level of associativity is a 4 way or less set associative cache.
14. The machine-readable medium of claim 8, wherein the second level of associativity is a 2 way set associative cache.
15. A system comprising:
- a processor;
 - a non-volatile cache coupled to the processor; and
 - a machine readable medium having stored thereon a set of instructions which when executed cause the system to perform a method comprising of:
- determining a status of the a system;
 - setting an associativity level of the non-volatile cache of the system, based on the status of the system.
16. The system of claim 15, wherein the non-volatile cache is a cache for a hard disk of the system.
17. The system of claim 16, wherein in response to determining the system is receiving power from a battery power source, setting the associativity level to a first level of associativity, the first level of associativity includes greater associativity than a second level of associativity.

18. The system of claim 17, wherein in response to determining the system is receiving AC power from a wall outlet, setting the associativity level to the second level of associativity.
19. The system of claim 18, wherein the first level of associativity is at least a 6 way set associative cache.
20. The system of claim 18, wherein the second level of associativity is a 4 way or less set associative cache.
21. The system of claim 18, wherein the second level of associativity is a 2 way set associative cache.